

1. A method for intelligent tandeming of an incoming call to an application node in telecommunication systems, the method comprising:

- (a) receiving an incoming call leg directed to a called party directory number;
- 5 (b) determining a subscriber profile;
- (c) when the subscriber profile does not include a tandem parameter, routing the incoming call leg to the called party directory number;
- (d) when the subscriber profile includes the tandem parameter, obtaining a routing parameter and performing digit analysis of the called party directory number;
- 10 (e) when the digit analysis has been performed successfully, tandeming the incoming call leg to the application node; and
- (f) when the digit analysis has not been performed successfully, providing a default mode for the incoming call leg.

15 2. The method of claim 1, wherein step (c) further comprises:
when the subscriber profile does not include the tandem parameter,
determining whether a trunk group of the incoming call leg is predesignated for tandeming;
when the subscriber profile does not include the tandem parameter and
20 when the trunk group of the incoming call leg is predesignated for tandeming, tandeming the incoming call leg to the application node; and
when the subscriber profile does not include the tandem parameter and
when the trunk group of the incoming call leg is not predesignated for tandeming, routing the incoming call leg to the called party directory number.

25 3. The method of claim 1, wherein the default mode comprises routing the incoming call leg to the called party directory number.

4. The method of claim 1, wherein the default mode comprises providing for
30 an announcement to be played to a calling party of the incoming call leg.

5. The method of claim 1, wherein the tandem parameter is a predesignated value of a field in the subscriber profile.

6. The method of claim 1, wherein the tandem parameter is included as a predesignated value of a field within an ANSI-compatible calling features indicator parameter.

7. The method of claim 1, wherein the tandem parameter is included as a predesignated value of a field within an ANSI-compatible message of a plurality of 10 ANSI-compatible messages, the plurality of ANSI-compatible messages including a registration notification return result, a qualification request return result, a location request return result, and a qualification directive (invoke).

8. The method of claim 1, wherein the routing parameter is selected from a plurality of routing parameters, the plurality of routing parameters including a plurality of dialing classes, a plurality of rate centers, a plurality of routing classes, and a plurality of origination indicators.

9. The method of claim 1, wherein the routing parameter determines a 20 selection of a trunk group for outgoing routing or tandeming of the incoming call leg.

10. The method of claim 1, wherein the digit analysis of the called party directory number determines a pattern match for available trunk groups for outgoing routing or tandeming of the incoming call leg and determines a format for the outgoing 25 routing or tandeming of the incoming call leg.

11.

An apparatus for intelligent tandeming of an incoming call to an application node in telecommunication systems, the apparatus comprising:

- a network interface for reception of an incoming call leg directed to a called party directory number;
- 5 a memory; and
- a processor coupled to the network interface and to the memory, wherein the processor, when operative, is configured to determine a subscriber profile, and when the subscriber profile does not include a tandem parameter, to route the incoming call leg to the called party directory number; the processor further configured, when the
- 10 subscriber profile includes the tandem parameter, to obtain a routing parameter and perform digit analysis of the called party directory number; and the processor further configured, when the digit analysis has been performed successfully, to tandem the incoming call leg to the application node, and when the digit analysis has not been performed successfully, to provide a default mode for the incoming call leg.

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12. The apparatus of claim 11, wherein the processor is further configured, when the subscriber profile does not include the tandem parameter, to determine whether a trunk group of the incoming call leg is predesignated for tandeming; the processor further configured, when the subscriber profile does not include the tandem parameter and when the trunk group of the incoming call leg is predesignated for tandeming, to tandem the incoming call leg to the application node; and the processor further configured, when the subscriber profile does not include the tandem parameter and when the trunk group of the incoming call leg is not predesignated for tandeming, to route the incoming call leg to the called party directory number.

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13. The apparatus of claim 11, wherein the default mode comprises routing the incoming call leg to the called party directory number.

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14. The apparatus of claim 11, wherein the default mode comprises providing for an announcement to be played to a calling party of the incoming call leg.

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15. The apparatus of claim 11, wherein the tandem parameter is a predesignated value of a field in the subscriber profile.

16. The apparatus of claim 11, wherein the tandem parameter is included as a predesignated value of a field within an ANSI-compatible calling features indicator parameter.

17. The apparatus of claim 11, wherein the tandem parameter is included as a predesignated value of a field within an ANSI-compatible message of a plurality of ANSI-compatible messages, the plurality of ANSI-compatible messages including a registration notification return result, a qualification request return result, a location request return result, and a qualification directive (invoke).

18. The apparatus of claim 11, wherein the routing parameter is selected from a plurality of routing parameters, the plurality of routing parameters including a plurality of dialing classes, a plurality of rate centers, a plurality of routing classes, and a plurality of origination indicators.

19. The apparatus of claim 11, wherein the processor is further configured, based upon the routing parameter, to select of a trunk group for outgoing routing or tandeming of the incoming call leg.

20. The apparatus of claim 11, wherein the processor is further configured, based upon digit analysis of the called party directory number, to determine a pattern match for available trunk groups for outgoing routing or tandeming of the incoming call leg and to determine a format for the outgoing routing or tandeming of the incoming call leg.

21. A system for intelligent tandeming of an incoming call to an application node in telecommunication systems, the system comprising:

an adjunct network entity, the adjunct network entity having the application node;

5 a database; and

a switching center couplable to the adjunct network entity and to the database, wherein the switching center, when operative, is configured to receive an incoming call leg directed to a called party directory number and to obtain a subscriber profile from the database, and when the subscriber profile does not include a tandem parameter, to route the incoming call leg to the called party directory number; the switching center further configured, when the subscriber profile includes the tandem parameter, to obtain a routing parameter and perform digit analysis of the called party directory number; and the switching center further configured, when the digit analysis has been performed successfully, to tandem the incoming call leg to the application node,

10 and when the digit analysis has not been performed successfully, to provide a default mode for the incoming call leg.

22. The system of claim 21, wherein the switching center is further configured, when the subscriber profile does not include the tandem parameter, to determine whether a trunk group of the incoming call leg is predesignated for tandeming; the switching center further configured, when the subscriber profile does not include the tandem parameter and when the trunk group of the incoming call leg is predesignated for tandeming, to tandem the incoming call leg to the application node; and the switching center further configured, when the subscriber profile does not include the tandem parameter and when the trunk group of the incoming call leg is not predesignated for tandeming, to route the incoming call leg to the called party directory number.

23. The system of claim 21, wherein the default mode comprises routing the incoming call leg to the called party directory number.

24. The system of claim 21, wherein the default mode comprises providing for an announcement to be played to a calling party of the incoming call leg.

25. The system of claim 21, wherein the tandem parameter is a predesignated value of a field in the subscriber profile.

26. The system of claim 21, wherein the tandem parameter is included as a predesignated value of a field within an ANSI-compatible calling features indicator parameter.

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27. The system of claim 21, wherein the tandem parameter is included as a predesignated value of a field within an ANSI-compatible message of a plurality of ANSI-compatible messages, the plurality of ANSI-compatible messages including a registration notification return result, a qualification request return result, a location request return result, and a qualification directive (invoke).

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28. The system of claim 21, wherein the routing parameter is selected from a plurality of routing parameters, the plurality of routing parameters including a plurality of dialing classes, a plurality of rate centers, a plurality of routing classes, and a plurality of origination indicators.

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29. The system of claim 21, wherein the switching center is further configured, based upon the routing parameter, to select of a trunk group for outgoing routing or tandeming of the incoming call leg.

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30. The system of claim 21, wherein the switching center is further configured, based upon digit analysis of the called party directory number, to determine a pattern match for available trunk groups for outgoing routing or tandeming of the incoming call leg and to determine a format for the outgoing routing or tandeming of the incoming call leg.

31. The system of claim 21, wherein the database is a home location register.

32. The system of claim 21, wherein the database is a visitor location register.

5 33. The system of claim 21, wherein the switching center is a mobile
switching center.

34. The system of claim 21, wherein the switching center is a wireline
switching center.

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35. The system of claim 21, wherein the application node is a prepaid
telecommunication service.

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36. The system of claim 21, wherein the application node is a calling party
pays telecommunication service.

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37. The system of claim 21, wherein the application node is a one number
telecommunication service.

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